

17(4)

AUTHORS:

Vasil'yev, I. M., Tsin' Su-Yun',
Rybalka, N. D.

SOV/2e-121-3-15/47

TITLE:

The Effect of X-Ray Irradiation Upon the Content of Chlorophyll
and Hemicellulose in Leaves of Wheat (Deystviye rentgenovs-
kogo obлучeniya na soderzhaniye khlorofilla i gemitsellyuloz
v list'yakh pshenitsy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 3,
pp 450 - 452 (USSR)

ABSTRACT:

The color of the leaves was changed in all the experiments
with irradiation of plants. Sufficiently high doses of
irradiation already after one week change the color of
the leaves from light green to dark green. Seeds of the
winter wheat 599 were grown in tap water on plexiglass
in Kokh cups which were filled by Knop's nutrient
solution. The plants were grown in a luminostat under
a constant illumination at a temperature of $23 \pm 2^\circ$. The
4-day old germs (contained in a part of the cups) were
irradiated without a filter at dose rates of 480 or

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The Effect of X-Ray Irradiation Upon the Content of
Chlorophyll and Hemicellulose in Leaves of Wheat

SOV/26-121-3-15/47

530 r/min. The doses of the irradiation amounted to 1000, 3000, and 5000 r. The growth of the plants was not completely suppressed after an irradiation with 1000 r, but it was stopped completely after an irradiation with 3000 or 5000 r. Chlorophyll is accumulated in leaves as a result of the irradiation of the plants by doses which suppress their growth. However, the immediate cause of the increase of the chlorophyll content in the irradiated plants is not the irradiation itself, but the suppression of growth by the irradiation. The content of hemicellulose was investigated for the same plants and under the same experimental conditions as in the determination of the chlorophyll content. The analysis of the hemicelluloses is discussed in a few lines. The irradiation of the plants caused a decrease of the hemicellulose in the leaves. No sharp differences were observed between the effects caused by irradiation doses of 3000 r and 5000 r. The above discussed experiments demonstrate an important feature of the influence of ionizing radiation on plants, viz. the depolymerization

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The Effect of γ -Ray Irradiation Upon the Content of
Chlorophyll and Hemicellulose in Leaves of Wheat

SOV/20-121-3-15/47

of complex hydrocarbons. There are 2 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics, AS USSR)

PRESENTED: April 1, 1958, by A.L.Kursanov, Academician

SUBMITTED: February 3, 1958

Card 3/3

VASIL'YEV, I.M.; TSIN' SU-YUN [Ch'in Su-yün]; RYBALKA, N.D.

Effect of X-ray treatment on the chlorophyll and hemicellulose content in wheat leaves. Dokl. AN SSSR 121 no. 3:450-452 J1 '58.
(MIRA 11:9)

1. Institut biologicheskoy fiziki AN SSSR. Predstavлено akademikom A.L.Kursanovym.

(X-RAYS--PHYSIOLOGICAL EFFECT)
(CHLOROPHYLL)
(HEMICELLULOSE)

RYBALKA N.D.

VASIL'YEV, I.M.; RYBALKA, N.D.; TSIN' SU-YUN' [Ch'in Su-yün]

Sugar accumulation in wheat leaves under the influence of X-ray treatment. Dokl. AN SSSR 119 no.1:62-64 Mr '58. (MIRA 11:4)

1. Institut biologicheskoy fiziki Akademii nauk SSSR. Predstavлено
академиком A.L. Kursanovym.
(LEAVES) (PLANTS, EFFECT OF X-RAYS ON)

VASIL'YEV, I.M.; RYBALKA, N.D.

Effect of X irradiation on the cellulose content of wheat plants.
Biofizika 4 no. 4:507 '59. (MIRA 14:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(WHEAT) (CELLULOSE)
(PLANTS, EFFECT OF X RAYS ON)

AFANAS'YEVA, Tamara Dmitriyevna; RYBALKA, Nikolay Ivanovich;
SHEVEYKO, A., red.; URBISINOV, A., tekhn. red.

[Grain storage and drying] Khranenie i sushka zerna. Alma-
Ata, Kazsel'khozgiz, 1963. 67 p. (MIRA 17:1)

RYBALKA, P.G.

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,
Nr. 1, p. 167 (USSR)

AUTHORS: Rybalka, P.G., Livova, Ye.P.

TITLE: Electric Arc Cutting of Pipes under Flux (Elektrodugovaya
rezka trub pod flyusom)

PERIODICAL: Sbornik: Vopr. svarki v energomashinostroyenii i
metallurgich. proiz-ve, Moscow, Mashgiz, 1955, pp.156-165.

ABSTRACT: Results of experiments in electric arc cutting under flux
with a metallic electrode of pipes with a wall thickness
up to 10 mm and with a cutting speed up to 250 m per hr
and more, are described. The experimental equipment was
assembled on the basis of a welding tractor of the YT-2000
type, the feeding of the arc was accomplished by three
welding transformers of the TC-150-8 type connected in
parallel. A wire, 5 and 6 mm in diameter, of the CB08
mark was used as electrode. Experiments in exciting the

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Electric Arc Cutting of Pipes under Flux. (Cont.)

112-1-1052

arc with various rotation speeds of the pipe and under various fluxes demonstrated that the increasing of the cutting speed within the investigated range, the composition of the flux and current changes within limits from 800 to 2500 amperes do not influence the dependability of exciting the arc by using an oscillator. The cutting speed and the stability of the process with a stable current can be raised at the expense of reducing the granulation of the flux. The use of flux-slag does not impair the stability of the process, nor the quality of the cut. Requirements from the electrode wire consist in securing a clean surface, giving a good electric contact, while the chemical composition of the wire does not have any substantial meaning. Experiments in cutting pipes with unshielded arc demonstrated the instability of the process; at the same time, the power of the arc, as compared with cutting under the

Card 2/3

112-1-1052

Electric Arc Cutting of Pipes under Flux. (Cont).

flux, increases by 20 to 25 per cent while much gas and smoke is given off. Experiments in cutting pipes with a carbon arc also did not give any positive results. The results of experiments with electric-arc cutting under flux shielding were checked up on an industrial machine tool "650" in producing pipes with a spiral seam, with full automation of the operation.

B.S.B.

Card 3/3

AID P - 5211

Subject : USSR/Engineering

Card 1/3 Pub. 107-a - 10/13

Author : Rybalka, P. G., Eng.

Title : Welding equipment at the All-Union Industrial Exposition

Periodical : Svar. proizv., 7, 28-31, J1 1956

Abstract : The author describes briefly several welding machines which were exhibited at the All-Union Industrial Exposition held in Moscow last June (1956). The following are outlined: the UTpl250-2 welding tractor, the TS-29 and the PSh-54 semi-automatic machines, the TS-17MA welding tractor for aluminum vessels and tanks, the NII-138 and the ASU-138 welding automatic device, the "650" industrial welding installation, the PSh-5, PSh-54 and PDSh-500 semi-automatic machines; the MOTR-54 portable welding machine; the KPF-1-55 installation for welding copper alloys 40 to 125mm thick; the URKh-3 installation for manual and mechanical oxygen-cutting of high chromium

AID P - 5211

Svar. proizv., 7, 28-31, J1 1956

Card 2/3 Pub. 107-a - 10/13

steel up to 500mm in thickness, or 300mm cast-iron, copper up to 500mm, and brass and bronze up to 150mm thick. In addition, the AGN-8-23 for argon and arc welding of stationary pipes, the A-372-M resistance-slag welding installation, the MD-138 and the NII-138 MSP electromagnetic detectors of defects in metals, the UZD-3 ultrasonic detector of defects in welding seams, and some accessory equipment and apparatuses are described. Eleven photos.

Institutions: Central Scientific Research Institute of Machine-Building Technology (TSNIITMASH), Welding Institute im. E. O. Paton, Podol'sk Plant im. Ordzhonikidze, Scientific Research Institute of Chemical Machine-Building (NIIKhIMMASH), Leningrad Machine Plant, Kiyev Machine-Tool Building Plant, Ministry of Machine-Tool and Tool Industry, Ministry of Transport Machine-Building, the

Svar. proizv., 7, 28-31, JI 1956

AID P - 5211

Card 3/3 Pub. 107-a - 10/13

Ministry of Defence, the Ministry of Railways, the
Ministry of Radio-Technical Industries, and others.

Submitted : No date

RYBALKA, P.G., inzhener.

Welding at the All-Union Industrial Exhibition. Svar. proizv.
no. 7:28-31 J1 '56. (MLRA 9:9)

(Electric welding--Equipment and supplies)
(Moscow--Exhibitions)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

RYBALKA, P.G., inzhener; L'VOVA, Ye.P., inzhener.

Electric arc pipe cutting using fusing agents. Trudy TSENIITMASH
76:156-165 '55. (Electric welding) (MLRA 9:7)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6"

RYBALKA, P. G., Engr

USSR/Metals - Cutting

Jul 50

"Rapid Gas Cutting of Pipes," Engineers A. I. Brodskiy, A. N. Iroshnikov, P. G. Rybalka,
G. M. Ryazanov

"Avtogen Delo" No 7, pp 21-23

Suggests two most efficient methods for cutting pipes: tangential gas cutting and electric-arc cutting under flux. Latter is simpler and less expensive, but gas cutting permits smooth edges without subsequent machining. Experiments established possibility of tangential cutting with single cutting torch at speed of 2.7 m/min for 7-10 mm thicknesses (4-5 times faster than speed of usual cutting methods).

PA 167T65

RYBALKA, P.G.

TSEGEL'SKIY, V.L.; ZHDANOV, V.A.; SHAFIT, Yu.Ya., inzhener, redaktor;
RYBALKA, P.G., inzhener, retsenzent.

[Electric welding] Elektrosvarochnoe delo. Izd. 4. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954.
375 p.
(Electric welding)

137-58-5-11147

RYBALKA, T.M.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 321 (USSR)

AUTHORS: Telushkin, N.V., Rybalka, T.M., Khlystun, V.G.

TITLE: The Employment of Semiautomatic and Automatic Devices for
the Determination of the Carbon Content in Cast Iron and Steels
(Primeneniye poluavtomaticheskikh i avtomaticheskikh appara-
tov dlya opredeleniya soderzhaniya ugleroda v chugunkakh i
stalyakh)

PERIODICAL: Tr. Nauchno-tekh. o-va chernoy metallurgii. Ukr. resp.
pravl., 1956, Vol 4, pp 61-64. Comments, pp 65-66

ABSTRACT: It is shown that it is possible to employ automatic devices for
the determination of C in cast irons and steels. A system was
developed and adapted whereby CO₂ is automatically absorbed
by lye. The sample is pumped from a buret into the absorber
by means of pressurized O₂ which is supplied automatically
through an electromagnetically energized solenoid stopcock. A
diagram of the automatic device is shown. A number of electric-
al blocking circuits effect the switching of the stopcock, supply
O₂ to the furnace, and control the withdrawal of specified quan-
tities of gas for sampling purposes, the pumping of the gas to be

Card 1/2

137-58-5-11147

The Employment of Semiautomatic (cont.)

absorbed, etc. The automatic apparatus is employed in the laboratory of the Yenakiyev plant.

1. Carbon--Determination 2. Metals--Analysis 3. Laboratory equipment
--Design

Card 2/2

GLAUBERMAN, A.Yu.[Hlauberman, A.IU.], prof., otv. red.; RYBALKA,
V.V., red.; SEN'KIV, M.T., dots., red.; VISHNEVSKIY, V.N.,
[Vishnev's'kyi, V.N.], dots., red.; YUKHNOVSKIY, I.R.
[I.Ukhnovs'kyi, I.R.], dots., red.; PALYUKH, B.M., dots.,
red.; KVITKO, I.S., red.

[Problems in solid state physics] Pytannia fizyky tverdoho
tila. L'viv, Vyd-vo L'viv's'koho univ., 1964. 117 p.
(MIRA 17:11)

l. Lvov. Universytet.

L 05691-67

EXT(1)/T

IJF(c) AT

ACC NR: AP6023004

SOURCE CODE: UR/0185/66/011/004/0442/0444 65
63
BAUTHOR: Rybalka, V. V.

ORG: Institute of Semiconductors AN URSR Kiev (Instytut napiwprovodnykiv AN URSR)

TITLE: The effect of intrinsic-impurity excitation on the nature of photoconductivity and infrared quenching

SOURCE: Ukrayins'kyy fizichnyy zhurnal, v. 11, no. 4, 1966, 442-444

TOPIC TAGS: photoconductivity, luminescence quenching, electron transition, semiconductor theory, impurity conductivity

ABSTRACT: The author studies the effect of intrinsic impurity excitation on photoconductivity and infrared quenching characteristics. A study of intrinsic photoconductivity and infrared quenching in copper- and silver-activated mercury sulfide specimens shows qualitative agreement between experimental and theoretical data. Nevertheless, certain deviations of experimental data from theoretical expectations were noted. The inverse relaxation time constant of infrared photoconductivity quenching as a function of the quenching factor should have its minimum in the low quenching region, which was not experimentally observed. The luminescence relaxation curve for intrinsic photoconductivity excited by a rectangular light pulse in the low quenching region has "fast" and "slow" relaxation components. The maximum relative

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L 05691-67

ACC NR: AP6023004

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amplitude of the portion contributed by "slow" relaxation is smaller than calculated by 15-30%. Problems were set up which showed that maximum quenching is a function of excitation light wavelength. The light absorption factor was relatively small so that photoconductivity occurred throughout the entire specimen. These results can be explained by a model proposed by the author and V. Ye. Lashkar'ov (in this same issue) if it is assumed that intrinsic light causes electron transitions from the valence band directly to the local level of the R-center (intrinsic-impurity excitation) in addition to interband transitions. The intensity of intrinsic excitation is proportional to the absorption factor in the absorption edge region and is strongly dependent on wavelength but intensity of impurity excitation is much weaker. Thus the interrelationship between the intensities of interband and impurity excitation is a function of wavelength. Expressions are given for calculating the number of quanta absorbed by the specimens during intrinsic-impurity excitation, the parameter for quenching by intrinsic light and the stationary quenching characteristic. The lux-ampere characteristic is determined for stationary extrinsic quenching. The author thanks Academician V. Ye. Lashkar'ov and Candidate of physical and mathematical sciences M. K. Sheynkman for their kind cooperation. Orig. art. has: 2 figures, 7 formulas.

SUB CODE: 20/ SUBM DATE: 04Nov65/ ORIG REF: 004/ OTH REF: 002

MS
Card 2/2

L 45455-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG/AT
ACC NR: AP6022995 SOURCE CODE: UR/0185/66/011/004/0372/0382

75

B

AUTHOR: Lashkar' ov, V. Ye. — Lashkaryev, V. Ye.; Rybalka, V. V.

ORG: Institute of Semiconductors, AN URSR, Kiev (Institut napivprovodnykiv AN
URSR)

TITLE: Photoconductivity and its infrared damping in mercury sulfide crystals
doped with Cu and Ag

SOURCE: Ukrayins' kyy fizychnyy zhurnal, v. 11, no. 4, 1966, 372-382

TOPIC TAGS: photoconductivity, crystal impurity, electron recombination, free
electron, capture cross section, V band, mercury sulfide crystal, infrared damping

ABSTRACT: An attempt has been made to investigate the regularities of stationary
photoconductivity infrared damping, and their kinetics in artificial crystals of the red
modification of an HgS admixture with Cu and Ag. It is shown that these impurities
are responsible for the appearance of centers which are slow to recombine. A model

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L 45455-66

ACC NR: AP6022995

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is designed with two recombination channels by taking into account ejections of holes from the R-level to the V-band. The free electron concentration is much lower than the vacancy concentration in both slow and fast recombination. The cross sections of electron capture by slow recombination centers are $s_s \approx 10^{-20} \text{ cm}^2$. The location of the sensitizing centers, determined by the position of the red border of infrared damping, is 1.0 ev for a Cu impurity and 0.7 ev for an Ag impurity. The temperature dependences are as follows: 0.55 ev for a Cu impurity and 0.27 ev for an Ag impurity. The effective hole-capture cross sections of these centers are equal to $g_s S_s \approx 10^{-16} \text{ cm}^2$ for HgS(Cu) and $g_s S_s \approx 10^{-17} \text{ cm}^2$ for HgS(Ag). The effective photon-capture cross section is $g_s \gamma = 1.3 \times 10^{-16} \text{ cm}^2$. Orig. art. has: 7 figures and 18 formulas. [Based on authors' abstract]

[NT]

SUB CODE: 20/ SUBM DATE: 20Jul65/ ORIG REF: 006/ OTH REF: 003/

Card 2/2

PASHKOVSKIY, M.V.; RYBALKA, V.V.; SAVITSKIY, I.V.

Conductivity of mercury sulfide single crystals. Fiz.tver.tela
4 no.7:1970-1972 J1 '62. (MIRA 6:6)

1. L'vovskiy gosudarstvennyy universitet imeni Iv.Franko.
(Mercury sulfide crystals) (Photoconductivity)

S/058/63/000/003/079/104
A059/A101

AUTHORS: Pashkovs'kyy, M. V., Rybal'ka, V. V., Savyts'kyy, I. V.

TITLE: Photoelectric properties of single crystals of α -HgS

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 79, abstract 3E549
("Visnyk L'viv's'k. un-tu. Ser. Fiz.", 1962, no. 1(8), 97 - 100,
Ukrainian)

TEXT: The temperature dependences of the dark current and the photocurrent, the lifetime of the carriers and the spectral distribution of the photocurrent in α -HgS single crystals, without added impurities and with I, Cu, and Tl impurities, were examined. The activation energies of the impurity levels of these elements are 0.15, 0.45, and 0.3 ev, respectively. The lifetime of the current carriers, determined from the initial section of the drop of photoconductivity, is of the order of 30 to 50 μ sec. The I impurity increases, and that of Cu and Tl decreases the total inertness of photoconductivity. It is assumed that the I impurity produces levels of adhesion, while the Cu impurity gives rise to recombination centers.

[Abstracter's note: Complete translation]

A. Shneyder

Card 1/1

L 45737-65

EPA(s)-2/EWT(1)/EWT(m)/EWP(b)/EWP(t)

Pt-7

IJP(c)

GG/JD/

SG/GS

ACCESSION NR: AT5009633

UR/0000/64/000/000/0115/0118

AUTHOR: Lymarenko, L. M. (Limarenko, L. M.); Pashkovs'ky, M. V. (Pashkovskiy, M. V.); Rybalka, V. V.; Savyts'ky, I. V. (Savitskiy, I. V.)

TITLE: Laws governing stationary photoconductivity in mercury sulfide with impurities

SOURCE: Lvov. Universitet. Pyatnyya fizyky dverdohc tila (Problems in solid state physics). Lvov, Vyd-vo L'viv. univ., 1964, 115-118

TOPIC TAGS: mercury sulfide, photoconductivity, stationary photoconductivity, impurity effect, temperature dependence

ABSTRACT: This is a continuation of earlier work by the authors (UFZh v. 6, 691, 1961; Sbornik referatu IV konference o monokristalech v Turnove 1961, VUM, Turnov, 1962, 93; FIT v. 4, 1970, 1962), dealing with the growth of HgS crystals and their properties. This technology was used to grow a series of HgS crystals with impurities of I, Cd, Sb, Se, Te, P, Tl, Cu, Ag, Sn, and Mn, in amounts of 0.001--0.1% introduced into the charge prior to the analysis. The procedure for measuring the stationary characteristics of the photoconductivity of the samples is described

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L 45737-65

ACCESSION NR: AT5009633

briefly. An investigation of the temperature dependence of the photocurrent shows that for most samples the photocurrent increases exponentially with increasing temperature at temperatures above 250K and is either independent of the temperature or depends very little on it at lower temperatures. The dark resistance of HgS has a weak dependence on the type of impurity, and the impurity maximum of the photosensitivity has a position that is independent of the type of impurity. The lux-ampere characteristics of the photocurrent is sublinear above 250K, with exponent 0.5--0.8 and linear below 250K. The weak dependence of the conductivity on the impurities is attributed to the compensating action of the cation vacancies. The impurity maximum of the spectral dependence of the photocurrent is attributed to excitation of electrons captured by these vacancies. The temperature and lux-ampere relationships are attributed to the influence of the filling of the adhesion centers on the rate of recombination of the free electrons. The results are interpreted in light of an earlier study of the dependence of the stationary photoconductivity on various factors (V. E. Lashkarev, FTT v. 5, 417, 1963). Orig. art. has: 2 figures, 7 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: OP, SS

OTHER: 001

NR REF Sov: 3, 004

Card 2/2

S/058/63/000/003/080/104
A059/A101

AUTHORS: Savyts'kyy, I. V., Pashkovs'kyy, M. V., Rybalka, V. V.

TITLE: Change in the electric conductivity of α -HgS by the action of x-irradiation

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 88, abstract 3E609
("Visnyk L'vivs'k. un-tu. Ser. fiz.", 1962, no. 1(8), 101 - 103,
Ukrainian)

TEXT: The dosimetric characteristics of α -HgS crystals are given which had been obtained by sublimation in a quartz flask at 660°C in a current of nitrogen purified from oxygen. The dark resistance of the samples was 10^{12} - 10^{13} ohms, and changed by some orders due to irradiation. The probe characteristics obtained with an x-ray beam, 0.6 mm in diameter, are given. The authors consider it possible to use α -HgS single crystals for recording narrow beams of low-intensity x-rays.

Yu. Tkhorik

[Abstracter's note: Complete translation]

Card 1/1

L 22928-66 EWT(1)/EWA(h) CW
ACC NR: AP6013163

SOURCE CODE: UR/0387/66/000/004/0036/0044

AUTHOR: Khalevin, N. I.; Druzhinin, V. S.; Rybalka, V. M.; Nezolenova, E. A.; Chukdakova, L. N.

ORG: Institute of Geophysics, Ural Branch, Academy of Sciences SSSR
(Institut geofiziki, Ural'skiy filial, Akademiya nauk SSSR)

TITLE: Results of deep seismic sounding^{1/2} of the earth's crust in the central Urals

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 4, 1966, 36-44

TOPIC TAGS: deep seismic sounding, seismic profile, seismic discontinuity, deep drilling, Moho discontinuity

ABSTRACT: In 1962—1964 the Bishenovsk Geophysical Expedition of the Ural Geological Administration of the Main Geological Administration of the RSFSR and the Institute of Geophysics of the Ural Branch of the Academy of Sciences SSSR carried out deep seismic soundings (GSZ) along a 450-km, east—west profile across the Urals between Krasnoufimsk on the west and Tyumen on the east. Both the GSZ and KMPV (longitudinal wave correlation) methods were used. In the GSZ operations, six shot points, spaced about 100 km apart with travel times of 300 km, were supplemented in the Asbest region by quarry explosions detonated

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UDC: 550.834:550.311

Z

L 22928-66

ACC NR: AP6013163

simultaneously with the GSZ shots. Three shot points, spaced about 25 km apart with travel times of 50 km, were used in the KMPV operations. Instruments used in the KMPV method were SS-30/60 stations with SPEN-1 seismographs; the filtration was 2-2 for distances of less than 100 km, and 1-1 for longer distances. Seismographs were arrayed in groups of 3-4, 10-20 m apart with 100 m between the groups. Six main groups of reflected and refracted waves were distinguished (three discontinuities in the upper crust and three in the lower crust), the surfaces of the granite-gneiss basement and the Moho discontinuity being the best defined. Analysis of the seismographic data showed that the crust and upper mantle is layered, that the crust is characterized by a fault-block structure, and that the Moho discontinuity is downwarped under the Urals. The authors evaluate the data obtained in this study as being of great value in selecting the site for deep drilling in the Urals and recommend that additional profiles be run, especially in the Tagil'—Magnitogorsk area where an explanation for the 7000 m/sec velocity discovered in the present study at a depth of 5-6 km might be obtained. Orig. art. has: 3 figures.

[ER]

SUB CODE: 08/ SUBM DATE: 26Dec64/ ORIG REF: 009/ OTH REF: 001
ATD PRESS: 4237

Card 2/2 *new*

RYBALKA, V.V.; KLIMOVSKAYA, A.I. [Klymovs'ka, A.I.]

Effect of capture levels on the relaxation of nonequilibrium conductance in Ge with Cu and Ni impurities. Ukr. fiz. zhur. 6 no.5:683-686 S-0 '61. (MIRA 14:11)

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franko.
(Germanium—Electric properties)
(Electrons—Capture)

RYBALKA, V.V.; PEREVERZEEVA, A.V. [Pereverzieva, A.V.]

Effect of thermal treatment on the magnetic resistance of
germanium. Ukr. fiz. zhur. 6 no.3:44-425 my-je '61.
(MIRA 14:8)

1. L'vovskiy gosudarstvennyy universitet.
(Germanium—Magnetic properties)

RYBALKA, V.V.; PIZIO, A.S.

Recombination of electrons and holes on copper and nickel atoms in
high-resistance germanium. Fiz. tver. tela 2 no.8:1773-1775 Ag '60.
(MIRA 13:8)

1. L'vovskiy gosudarstvennyy universitet im. Ivana Franko.
(Germanium)

82994
S/181/60/002/008/013/045
B006/B070

24,7700

AUTHORS: Rybalka, V. V., Pizio, A. S.

TITLE:

Electron - Hole Recombination on Copper and Nickel Atoms
in High Resistivity Germanium

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 8, pp. 1773-1775

TEXT: The authors investigated the lifetime of electrons and holes in high-resistivity n-type germanium samples doped with copper and nickel. The introduction of the impurities was made by diffusion in vacuum. As a result of this, the resistivity of the germanium sample was almost doubled (cf. Table on p. 1773). The measurements of lifetime were made in the region 150 - 300°K with the pulse method after the decline of the photoconductivity. The results (Figs. 1,2) are somewhat unusual. In the nickel-doped samples the carrier lifetime did not increase but decreased with increase of temperature. This can be explained by the Shockley-Read theory by assuming a decrease of the hole trapping cross section on the nickel levels. However, according to Ref. 5 the hole

Card 1/3

8294

Electron - Hole Recombination on Copper and
Nickel Atoms in High Resistivity Germanium

S/181/60/002/008/013/045
B006/B070

trapping cross section is constant in the case of recombination by nickel levels in germanium. It is now desired to clarify the experimental observation on the basis of the theory of recombination on multiple charged traps. In the forbidden zone of germanium, nickel has 2 levels: I - at 0.25 ev from the ceiling of the valence band, and II - at 0.3 ev from the bottom of the conduction band (copper: I - at 0.04 ev, II - at 0.32 ev from the ceiling of the valence band, and III - at 0.25 ev from the bottom of the conduction band; the Fermi level is so far from level I that the effect of the latter may be neglected). Using $\Delta E = 0.72$ ev, $\Delta E_1 = 0.3$ ev, $\Delta E_2 = 0.47$ ev for nickel and $\Delta E = 72$ ev, $\Delta E_1 = 0.25$ ev, $\Delta E_2 = 0.4$ ev for copper, the following results are obtained:
 $\tau = \text{const} + \tau_{n_0} \exp(0.05/kT)$ for nickel-doped germanium, and

$\tau = \text{const} + \tau_{n_0} \exp(-0.07/kT)$ for copper-doped germanium. From this it is

seen that in the first case (Fig. 1) the carrier lifetime decreases exponentially with rising temperature, and in the second case (Fig. 2) it increases. This is in agreement with experiments. The general formula for the measurement of τ leads to $\tau = \text{const} + \tau_{n_0} \exp[(-\Delta E + \Delta E_1 + \Delta E_{II})/kT]$.

Card 2/3

Electron - Hole Recombination on Copper and
Nickel Atoms in High Resistivity Germanium

82994
S/181/60/002/008/013/045
B006/B070

There are 2 figures, 1 table, and 9 references: 3 Soviet and 5 US.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. Ivana Franko
(L'vov State University imeni Ivan Franko)

SUBMITTED: November 24, 1959

X

Card 3/3

L 19846-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AR4048150

S/0081/64/000/011/B044/B044

SOURCE: Ref. zh. Khimiya, Abs. 11B307

UTHCR: Pashkovskiy, M. V., Savitskiy, I. V., Rybalka, V. V.

TITLE: Some of the physical properties of crystals of mercuric sulfide

CITED SOURCE: Izv. Leningr. elekrotekhn. in-ta, vy*p. 51, 1963, 167

TOPIC TAGS: mercuric sulfide, single crystal, crystal photoconductivity, crystal photosensitivity, crystal electrical conductivity

TRANSLATION: Single crystals of the red form of HgS were obtained by sublimation in evacuated, sealed, quartz ampoules at an appropriate temperature gradient or in an atmosphere of N₂. These crystals were then used to study the effect of temperature on the electrical conductivity, the spectral distribution of the photosensitivity and the kinetics of photoconductivity. HgS was found to be a substance which is sensitive to radiation.

L. Yerman

SUB CODE: IC, SS ENCL: 00

C: o 1/i

LASHKAREV, V.Ye. [Lashkar'ov, V.IE.]; RYBALKA, V.V.

Relaxation of photoconductivity with flashes in HgS with Cu impurity. Ukr. fiz. zhur. 10 no.2:166-171 F '65. (MIRA 18:4)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

24.7700 (1043, 1055, 1144)
9.4177 (also 1035)

30334
S/185/61/006/005/011/019
D274/D303

AUTHORS: Rybalka, V.V., and Klymovs'ka, A.I.

TITLE: Effect of trapping levels on relaxation of non-equilibrium conductivity in Ge with Cu- and Ni impurities

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 5, 1961,
683 - 685

TEXT: The investigation was conducted at various temperatures. The original material was n-type germanium with a resistivity of approximately 20 ohm·cm. The specimens were covered (by electrolysis) with Cu or Ni and kept in quartz containers at the necessary temperature in a vacuum of 10^{-5} mm Hg, until the impurity diffused in the crystal. Then the specimens were tempered, polished and etched. The parameters of the specimens after diffusion are listed in a table. For low temperature investigation, the specimens were placed in a cryostat. The drop in non-equilibrium conductivity called forth by current pulses from the generator 26-1 (I), was observed, after amplification, on the screen of the oscilloscope CM-1 (SI-1). X

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30334

S/185/61/006/005/011/019

D274/D303

Effect of trapping levels on ...

At relatively high temperatures, the conductivity curves were exponential with time constant τ , equal to the lifetime of the carriers. At low temperatures, the curves were not exponential. The obtained results can be explained by the presence, in the forbidden gap, of trapping levels for holes, in addition to the recombination levels. Figures show the temperature dependence of the relaxation time of the specimens. In the references, the pertinent kinetic equations were solved. At very low temperatures, the time constant is

$$\tau = \tau_p \left(1 + \frac{M e^{\frac{\Delta E_M}{kT}}}{P_o} \right), \quad (1)$$

where τ_p is the lifetime of holes, M - the concentration of trapping centers, ΔE_M - the position of trapping levels with respect to the upper limit of the valence band. At sufficiently low temperatures, when the rate of migration of holes from the trapping level to the valence band is lower than the rate at which electrons are trapped by these levels, the relaxation time of the trapped holes is de-

Card 2/4

3033A
S/185/61/006/005/011/019
D274/D303

Effect of trapping levels on ...

terminated by their recombination with electrons at the trapping levels; in this case

$$\tau = \frac{1}{\gamma n M_0}, \quad (2)$$

where γ is the probability of an electron being trapped, n_0 is the equilibrium concentration of electrons in the conduction band. At the temperature of transition from Eq. (1) to Eq. (2), the rate at which holes are trapped equals the rate at which electrons are trapped. By comparing these rates, the ratio of the trapping probabilities of holes to electrons can be found:

$$\beta = \left(\frac{\gamma_{pM}}{\gamma_{nM}} \right) \frac{\Delta E_M}{\tau - \tau_n} = \frac{n_0 e^{-\frac{\Delta E_M}{kT}}}{p_0}. \quad (3)$$

The results obtained by the authors are in agreement with the above considerations. Eq. (1)-(3) were used for determining the parameters of the trapping centers. The results are listed in a table, and are in good agreement with the results obtained by other inves-

Card 3/4

30334

S/185/61/006/005/011/019

D274/D303

Effect of trapping levels on ...

tigators. At room temperature, $\beta \approx 10$; at a temperature of nearly 150°K, $\beta = 75$ which shows that γ_{PM} increases with decreasing temperature. The difference between the probabilities of trapping respectively, electrons and holes is greater for the Cu levels than for the Ni levels. The concentration M can be also directly determined by the change in conductivity due to the filling of the trapping levels. There are 2 figures, 2 tables and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language publications read as follows: Wertheim, Phys. Rev., 115, 37, 195; J.P. McKelvey and Longini, J. Appl. Phys., 25, 6, 34, 1954; W. Shockley and W. Read, Phys. Rev., 87, 835, 1952. ✓

ASSOCIATION: L'vivs'kyy derzhavnyy universytet im. Iv. Franka
(L'viv State University im. Iv. Franko)

SUBMITTED: February 16, 1961

Card 4/4

PASHKOVSKIY, M.V.; RYBALKA, V.V.; VOLZHENSKIY, D.S.

Simple device for regulating the temperature under laboratory
conditions. Prib. i tekhn. ekspl. no. 6:134 N-D '60. (MIRA 13:12)

1. L'vovskiy gosudarstvennyy universitet.
(Temperature regulators)

22490

S/185/61/006/003/009/010
D208/D302

9.4300(1136,1150,1151)

AUTHORS: Rybalka, V.V. and Pereverzyeva, A.V.

TITLE: Effect of heat treatment of Ge on its magneto resistance

PERIODICAL: Ukrayins'kyy fizichnyy zhurnal, v. 6, no. 3, 1961,
424-425 X

TEXT: It is important to study the behavior of semiconductors under heat treatment, since the latter are used in instruments which undergo heating and cooling cycles. Up to now, Ge under heat treatment was studied with respect to electrical conductivity and lifetime of the carriers. T.V. Mashovets, S.M. Rybkin (Ref. 1: ZhTF, 25, 1530, 1955), and V.V. Ostroborodova, S.G. Kalashnikov (Ref. 2: ZhTF, 25, 1163, 1955). In the present study, a specimen of Germanium is quenched and its magneto-resistance investigated. Specimens of $15 \times 4 \times 2 \text{ mm}^3$ were cut out perpendicular to the growth axis of an n-type Ge crystal with specific resistance $\rho = 19 \text{ ohm} \cdot \text{cm}$. Then the specimens were polished with fine powder, immersed

Card 1/2

23296

S/185/61/006/003/009/010
D208/D302

Effect of heat treatment...

in boiling 30% H₂O₂ and washed with distilled water. Further, the specimens were closed in a special quartz ampule at a vacuum of ~10⁻⁵ mm Hg and heated in a furnace to the required temperature; they were kept at that temperature for definite periods of between 1 to 6 hours and then quenched in water. Again, they were polished immersed and washed. The resistance was measured with the potentiometer PPTV-1. On quenching, thermal conversion was observed which is explained by the formation of thermo-acceptors and their compensation by the electron conductivity of the specimen. At a quenching temperature of approximately 690°C, n-type changed into p-type. The results of the measurements show that at relatively low temperatures the relationship $\frac{\Delta I}{I} = AH^2$ holds. A special effect which

might be explained by non-homogeneous distribution of carriers in the specimen is also shown. There are 2 figures and 2 Soviet-bloc references.

ASSOCIATION: L'viv's'kyy derzhavnyy universitet (Lvov State University)

SUBMITTED: February 16, 1961

Card 2/2

247700

38952
S/181/62/004/007/034/037
B111/B104

AUTHORS: Pashkovskiy, M. V., Rybalka, V. V., and Savitskiy, I. V.

TITLE: Conduction processes in single crystals of mercury sulfide

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1970-1972

TEXT: HgS monocrystals were produced from 99.999% pure Hg and S by vacuum synthesis at 750°C or by sublimation in an atmosphere of N or H₂S (resistivity at room temperature 10⁹-10¹⁰ ohm·cm, forbidden band width 1.8 ev). Admixtures (< 0.1 percent by weight) of I, Se, Te increased the conductivity by 2-3 orders of magnitude, whereas Cu, Ti impurities decreased it. Monochromatic light irradiation increased conductivity by 2-5 orders of magnitude. The maximum of spectral sensitivity for α-HgS lies at λ = 620 μμ. On cooling toward shorter wavelengths it shifts at a rate of 3 °/degrees. Adding I, Se, Te, P, Cd, Ag, Cu gives rise to an additional maximum in the infrared region whose position and height depend on the type of impurities and their concentration, respectively. Relaxation of photoconductivity is observed by excitation with light pulses.

Card 1/2

S/181/62/004/007/034/037

B111/B104

Conduction processes in single ...

Their relaxation curve consists of two distinct sections. The time constant of the first section, which is $30-500 \mu\text{sec}$, determines the stationary characteristics and is equivalent to the life of the charge carriers of photocurrent. For certain specimens this section includes 70-90% of the whole curve. The second part of the relaxation curve is determined by adhesion processes of nonequilibrium carriers. Its time constant depends to a great extent on the type of admixtures and on their concentration. There are 2 figures.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. Iv. Franko
(L'vov State University imeni Iv. Franko)

SUBMITTED: March 23, 1962

Card 2/2

L 38095-65 EWT(1)/EPA(s)-2/EWT(m)/EPC(t)/EWP(t)/EWP(b) Pt-10 IJP(c)
ACCESSION NR: AP5005911 JD/JG/AT S/0185/65/010/002/0166/0171

AUTHOR: Lashkar'ov, V. Ye. (Lashkarev, V. Ye); Rybalka, V. V.

TITLE: Photoconductivity relaxation with flashes in HgS doped with Cu

SOURCE: Ukrayins'kyy fizichnyy zhurnal, v. 10, no. 2, 1965, 166-171

TOPIC TAGS: mercury sulfide, photoconductivity, photoconductivity relaxation, intrinsic photoconductivity, adhesion level, electron capture cross section

ABSTRACT: The authors investigated the laws governing the relaxation of the intrinsic photoconductivity with flashes in HgS with impurities 0.001, 0.01, and 0.1 wt.% Cu. The samples were grown by a synthesis method in sealed quartz ampoules, and cleaved into individual crystallites. Crystallites without cracks were chosen for the measurements, for which purpose they

38

37

B

~~monochromator.~~

Card 1/3

L 38095-65

ACCESSION NR: AP5005911

Investigations made without constant illumination of the sample, at high pulsed light intensity, have shown that the increase in photoconductivity with flash extends over the entire investigated temperature interval. At temperatures below ~250K the photocurrent decreases to a stationary value after several hours. The results are in agreement with the theoretical calculations made by one of the authors earlier (Lashkarev, FTT v. 5, 417, 1963), where it was assumed that slow adhesion levels exist in the forbidden band of $\text{MgS}(\text{Cu})$. The depth of the slow adhesion level for electrons was found to be 0.6 eV, giving a value of $\sim 10^{-17} \text{ cm}^2$ for the cross section of capture of an electron by such a level. It is shown that if certain conditions are satisfied (Lashkarev, FTT v. 3, 1963, 1961) the fast adhesion levels do not influence the relative value of the flash or the time constant of the slow relaxation section. The temperature dependence of the time of relaxation following the flash is used to determine the parameters of the slow adhesion levels (0.6 eV, 10^{-17} cm^2). The temperature dependence of the relative magnitude of the flash agrees with these results. Orig. art. has: 5 figures and

RYBALKA, V.Ye., Cand Med Sci — (diss) "Analysis of the results of manual and instrumental intrauterine ~~interventions~~ in the afterbirth and postnatal period." Chernovtsy, 1959, 17 pp (Chernovtsy State Med Inst) 200 copies (KL, 33-59, 122)

- 71 -

RYBALKA, Ye. [Rybal'ka, YE.], inzh.

Physics and the mystery of a green leaf. Znan. ta pratsia
no.10:15-16 O '61.

(MIRA 14:8)

(Agricultural research)
(Photosynthesis)

SOV/58-59-5-11371

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 209 (USSR)

AUTHORS: Kamskiy, A.P., Rybalka, Ye.F.

TITLE: DC Amplifier

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1958, Vol 98, Tr. Fiz. otd. fiz.-matem. fak., Vol 7, pp 355 - 358

ABSTRACT: The authors describe an electrometer amplifier with an AC supply system. After warmup "zero drift" is practically nonexistent. The technique of tuning up the amplifier is provided.

The authors' résumé

Card 1/1



BATYUK, V.P.; RYBALKA, Ye.F.

Apparatus for fast determination of moisture in plants. Biofizika 4
no.1:120-122 Ja '59. (MIRA 12:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii rasteniy,
Kiyev.
(PLANTS--CHEMICAL ANALYSIS) (BOTANICAL APPARATUS)

Ry BALKA, Y.L.

RYBALKA, Y.L. Can Med Sci -- (diss) "Clinical and Laboratory ~~Development~~
of Certain Problems ^{Treatment} Trichomoniasis of Female Genital ~~Tracts~~".

Kiev, 1957. 15 pages .(Kiev Order of Labour Red Banner Med Inst im
xmf Academician A.A. Bogomolets). 200 copies. (KL, 10-58, 122).

RYBALKA, Ye.L.

Treatment of trichomoniasis of female genitalia with liquid tar soap
and hypertonic sodium chloride solutions. Akush. i gin. 32 no.4:
72-74 Jl-Ag '56. (MIRA 9:11)

1. Iz kafedry akusherstva i ginekologii No.1 (zav. - professor A.Yu.
Iur'ye) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo
instituta imeni akad. A.A.Bogomol'tsa.

(TRICHOMONIASIS, ther.

female genitalia, ther., liquid tar soap with hypertonic
sodium chloride solutions)

(GYNECOLOGICAL DISEASES, ther.

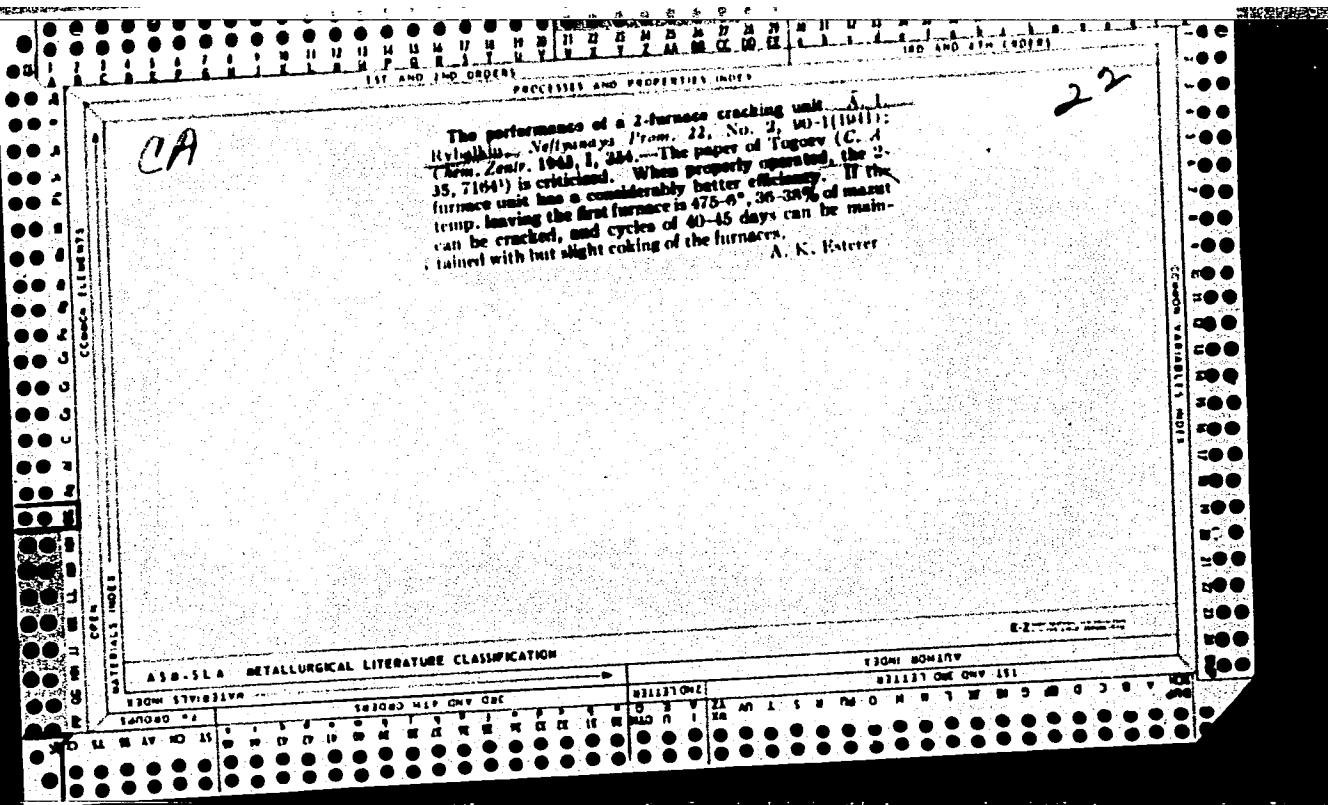
trichomoniasis, ther. liquid tar soap with hypertonic
sodium chloride solution)

(SOAPs, ther. use

liquid tar soap with hypertonic sodium chlride solution
in trichomoniasis of female genitalia)

(HYPERTONIC SOLUTIONS, ther. use

sodium chloride solution with liquid tar soap in
trichomoniasis of female genitalia)



RYBALKIN, burovoy master.

The BU-75 is a good drilling rig. Neftianik 5 no. 12:13 D '60.
(MIRA 13:12)

1. Stalingradskiy sovnarkhoz.
(Stalingrad Province--Oil well drilling rigs)

RYBALKIN, Aleksandr Akimovich [Rybalkin, O.]; KOROBKO, V., red.;
LAPCHENKO, I., tekhn.red.

[Condition of the working class in the capitalist countries)
Stanovyshche trudiashchikh v kapitalisticheskikh kraitakh. Kyiv,
Derzh.vyd-vo polit.lit-ry. URSR, 1958. 80 p. (MIRA 13:3)
(United States--Labor and laboring classes)
(Europe, Western--Labor and laboring classes)

RYBALKIN, D.G., inzh.; KUZ'MENKO, A.I., inzh.

Standardizing the dimensions of rolled welded pipes. Stan-
dardizatsiya 29 no. 11:24-25 N '65 (MIRA 19:1)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

RYBALKIN, G., elektrosvarshchik

Simple electrode holder. Stroitel' no.1:24 Ja '61. (MIRA 14:2)
(Electrodes)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6"

GREKOV, A.G., inzh.; RYBALKIN, G.I., inzh.; NOVIKOV, N.V., inzh.

Stoping mining with hydraulic breaking down of the coal and rock.
Shakht. stroi. no.12:20-22 D '59. (MIRA 13:3)

1.Kombinat Luganskshakhtstroy.
(Hydraulic mining)

RYBALKIN, G.I., inzh.; SHARAPOV, V.A., inzh.; VELIKIY, I.G., inzh.;
MALIOVANOV, D.I., doktor tekhn. nauk; PRUZHNIER, V.L., inzh.;
KONDORSKIY, R.L., inzh.; TUMANOV, V.Ya., inzh.; POGORELOV,
A.K., kand. tekhn. nauk

The BUKS-I equipment is an important step in the accomplishment
of overall mechanization of shaft sinking. Shakht. stroi. 9 no.2:
1-3 F '65. (MIRA 18:4)

1. Kombinat Luganskshakhtostroy (for Rybalkin, Sharapov, Velikiy).
2. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy
institut podzemnogo i shakhtnogo stroitel'stva (for Maliovyanov,
Pruzhnier, Kondorskiy, Tumanov, Pogorelov).

RYBALKIN, M.I.

Pay more attention to the quality of sugar beet cossettes.
Sakh. prom. 37 no.8:27-29 Ag '63. (MIRA 16:8)

I. Tetkinskiy im. Kalinina sakharnyy zavod.
(Sugar beets) (Sugar machinery)

RYBALKIN, M.I.

VVN-50 water-ring vacuum pump. Sakh. prom. 35 no.8:31-33
(MIRA 14:8)
Ag '61.

1. Sakharnyy zavod imeni Kalinina.
(Vacuum pumps) (Sugar industry—Equipment and supplies)

RYBALKIN, M.I.

Problems in the organization of repairs. Sakh.prom. 36
no.4:10-11 Ap '62. (MIRA 15:5)

1. Sakharnyy zavod imeni Kalinina.
(Kursk Province-Sugar manufacture-Equipment and supplies)

RYBALKIN, M.I.

Consumption of lubricants. Sakh. prom. 36 no. 12:14-17 D 162.
(MIRA 16:6)

1. Sakharnyy zavod im. Kalinina.
(Sugar machinery—Lubrication)

RYBALKIN, M.I.

Some proposals for the improvement of equipment design. Sakh.
prom. 37 no.4:50-51 Ap '63. (MIRA 16:7)

1. Sakharnyy zavod im. Kalinina.
(Sugar machinery—Technological innovations)

RYBAIKIN, M. I.

Some defects of the equipment manufactured for sugar
factories. Sakh.prom. 34 no.8:18-20 Ag '60.
(MIRA 13:8)

1. Sakharnyy zavod imeni Kalinina.
(Sugar machinery)

GOLGER, L.I.; Prinimali uchastiye: NYBALKIN, M.V.; NAUMENKO, I.P.

Vibratory transportation of free-flowing materials in the production
of ferment preparations. Ferm. i spirt. prom. 31 no.6123-27 '65.
(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut fermentnoy i
spirtovoy promyshlennosti.

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

KURYATUTKOV, A.I.; TSEBOLAEV, S.I.; RYBAIKIN, N.M.

Certain theoretical prerequisites for the production of heat
insulating materials. Konstr. uglegraf. mat. no.1:64-68 '64.
(MIRA 17:11)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6"

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

VYATKIN, S.Ye.; KURYATNIKOV, A.I.; LEBEDEV, S.I.; RYBALKIN, N.M.;
STERLYADKINA, Ye.K.

Use of fibrous materials in industry. Konstr. uglegraf. mat.
(MIRA 17:11)
no.1:58-63 :64.

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6"

DROBOT, A.T., tekhnik (Vol'nogorsk, Dnepropetrovskoy oblasti); RYBALKIN,
F.A., inzh. (Vol'nogorsk, Dnepropetrovskoy oblasti); SIGNAYEVSKIY,
A.A., inzh. (Vol'nogorsk, Dnepropetrovskoy oblasti).

Washing the convective heating surfaces of boilers with an alkali
solution. Energetik 13 no.8:8-9 Ag '65. (MIRA 18:9)

RYBAKIN, P.I.

Reconstructing the conveying system in the cement shop of the
"Giant." Plant. TSement 26 no.2:29-30 Mr-Ap '60.
(MIRA 13:6)

(Conveying machinery) (Cement--Transportation)

RYBALKIN, P.M.

Modernization of the elevator loader T-61A. Mekh.trud.rab. 10 no.12:41
(MLRA 10:5)
D '56. (Loading and unloading)

RYBALKIN, P. P. Cand. Med. Sci.

Dissertation: "Epidemic Goiter of the Northern Bukovina," Central Inst. for Advanced Training of Physicians. 25 Nov 47.

SO: Vechernaya Moskva, Nov, 1947 (Project #17836)

ANIKINA, T.I., dots.; BOGUSLAVSKAYA, T.B., ass.; BOMASH, Yu.M.,
dots.; GEIMAN, D.V., ass.; GRENADEROV, Yu.V., ass.;
DOBROVA, N.B., ass.; KLEPIKOV, V.A., ass.; ZUBRILOVA, A.V.,
ass.; KULIK, V.P., mlad. nauchn. sotr.; NIKOLAYEV, F.D.,
dots. [deceased]; SYCHENIKOV, I.A., dots.; TRAVIN, A.A.,
ispoln. obyazannosti prof.: RYBALKIN, P.Ye., ass.;
KOVANOV, V.V., prof., red.; PROKOF'YEV, V.P., red.;
ZAGOREL'SKIY, ia.l., tekhn. red.

[Special methodology for practical work in topographic
anatomy and operative surgery] Chastnaia metodika praktiche-
skikh zaniatii po topograficheskoi anatomii i operativnoi
khirurgii. Izd.2., perer. i dop. Pod red. V.V.Kovanova.
Moskva, 1963. 224 p. (MIR 16:12)

1. Moscow. Pervyy meditsinskiy institut. 2. Kollektiv pre-
podavateley kafedry operativnoy khirurgii i topograficheskoy
anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova (for
all except Prokof'yev, Zagorel'skiy). 3. Zaveduyushchiy ka-
fedroy operativnoy khirurgii i topograficheskoy anatomii 1-go
Moskovskogo instituta imeni I.M.Sechenova , chlena-korrespon-
dent AMN SSSR (for Kovanova).

(ANATOMY, SURGICAL AND TOPOGRAPHICAL)
(SURGERY, OPERATIVE)

RYBALKIN, P.Ye.

Method for draining the common bile duct in acute cholecystitis and
some problems in the surgeon's tactics in the pre- and postoperative
periods. Trudy TSIU 2:281-289 '61. (MIRA 15:8)
(DRAINAGE, SURGICAL) (BILE DUCTS--SURGERY) (GALL BLADDER--DISEASES)

RYBALKIN, P.Ye., kandidat meditsinskikh nauk (Moskva)

Preoperative preparation of patients with hyperthyroidism. Probl.
endokr. i gorm. 2.no.2:44-49 Mr-Apr '56. (MLRA 9:10)

1. Iz 2-y kafedry klinicheskoy khirurgii (zav. - prof. B.K.Osipov)
TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P.
Lebedeva) na baze Moskovskoy gorodskoy bol'ницы No.50 (glavnnyy
vrach N.P.Brusova)

(PREOPERATIVE CARE, in various dis.

hyperthyroidism)

(HYPERTHYROIDISM, surg.
preop. care)

RYBALKIN, V.

Some data on the international socialist division of labor. Vnesh.
torg. 42 no.10:27-33 '62. (MIRA 15:10)
(Mutual Economic Assistance Council) (Europe, Eastern—Division of labor)
(Europe, Eastern—Commerce)

RYBALKIN, V.

The monograph "International division of labor under socialism"
by G. Popisakov. Reviewed by V. Rybalkin. Vnesh. torg. 41 no.
7:44-45 '61. (MIRA 14:7)
(Communist countries--Economic conditions)
(Division of labor) (Popisakov, G.)

RYBALKIN, Valeriy Yevgen'yevich; KUZNETSOV, P.V., red.; GERASIMOVA, Ye.S.,
tekhn. red.

[Cost and price of industrial product] Sebestoimost' i tsena pro-
myshlennoi produktsii. Moskva, Izd-vo ekon.lit-ry, 1961. 44 pp.
(MIRA 14:12)

(Costs, Industrial) (Prices)

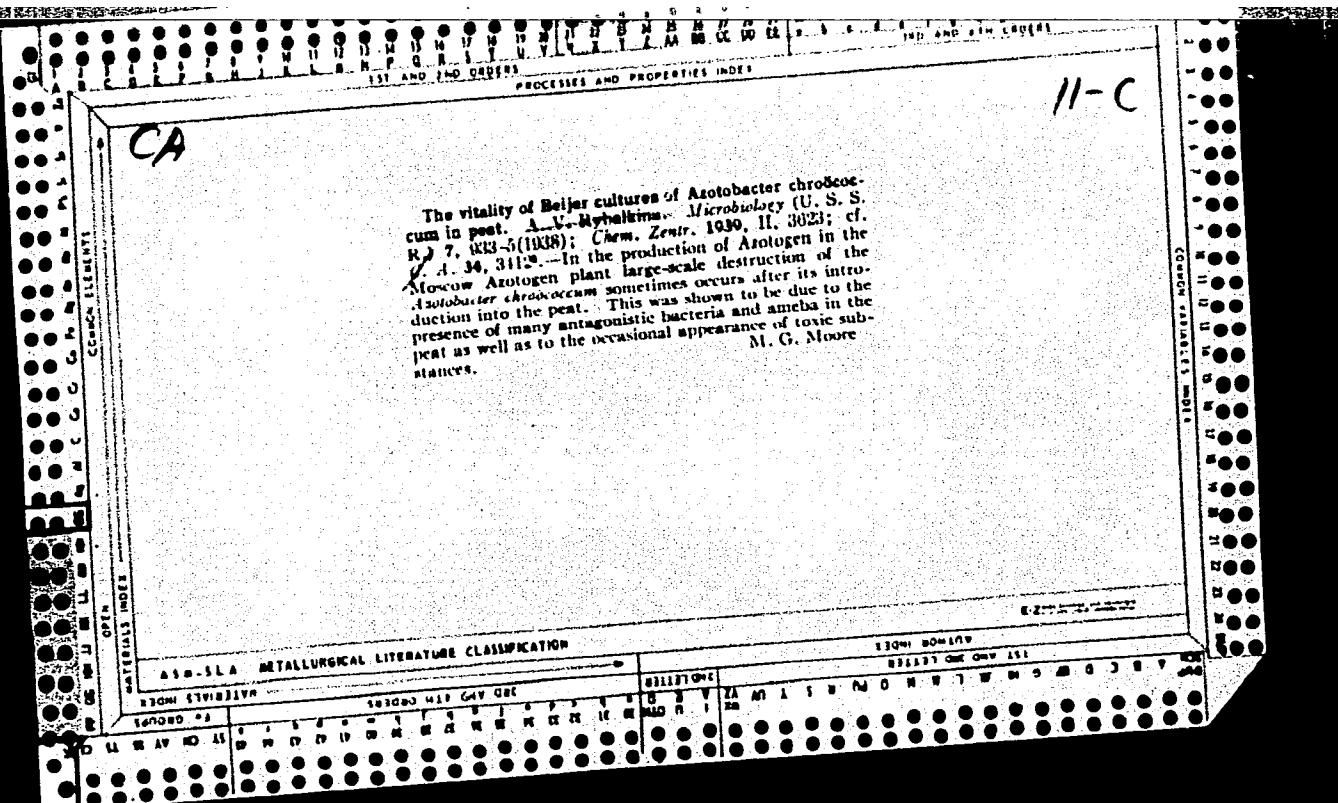
RYBALKIN, Valeriy Yevgen'yevich

[International division of labor; study on the theory]
Mezhdunarodnoe razdelenie truda: ocherk teorii. Moskva,
Vysshiaia shkola, 1963. 106 p. (MIRA 17:3)

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Toxic substances in soils and their action on soil bacteria. A. V. Rakhlin. *Aerobiology* (U.S.S.R.) 7, 917-919 (1951). *Akad. Nauk. Akad. Znan.* 1950, No. 6, 57.
The soil solns, which cause evolution of CO₂ on addn. to culture media are called "stimulating" and the solns, which hinder the evolution of CO₂ are called "depressing" solns. An accumulation of depressing substances in the soil soln was connected with a sufficiently high temp. of the soil and air (16-25°) and with atm. prtn. which fell 2-3 days before taking the samples. A depressing soln. was obtained in the lab. by addn. to the soil of 2% of CaCO₃ and incubation at 25° and, especially, at 37°.
W. R. Henn

15
A10-115. METALLURGICAL LITERATURE CLASSIFICATION



RYBALKIN A. V.

44/49T3

USSR/Agriculture
Agronomy

Apr 49

"The Microflora of Peat and Its Relationship to
Azobacter Chroococcum and to Higher Plants,"
A. V. Rybalkin, 14 pp

"Pochvovedeniye" No. 4

Identifies three basic types of microorganisms:

(1) those antagonistic to azobacter, (2) those
stimulating development of azobacter, and (3)
those associated with azobacter. All thermicro-
organisms identified belonged to either the
Pseudomonas or Achromobacter family. No specific
lab

44/49T3

USSR/Agriculture (Contd)

Apr 49

relationship appeared between bacteria and
Plant growth.

IC

44/49T3

RYBALKINA, A. V.

Soil Microorganisms

Comparative description of certain soil microorganisms. Trudy Poch. inst. no. 33, 1951.

9. Monthly List of Russian Accessions, Library of Congress, December 1953, Uncl.
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RIBALKINA, A.

Soil Microorganisms

All-Union conference on soil microbiology. Pochvovedenie, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress
June 1952. UNCLASSIFIED.

RYBALKINA, A. V., BOL'SHAKOVA, V. S.

Soil Microorganisms

Physiological characteristics of actinomyces in several types of soil. Pochvovedenie no. 8, 1952.

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RYBAIKINA, A.V.; KONONENKO, Ye.V.

Direct observation of soil microflora by Kholodnyi's modified method. Mikrobiologiya 22 no. 4:439-444 Jl-Ag '53. (MLRA 6:8)

1. Pochvennyy institut imeni V.V.Dokuchayeva Akademii nauk SSSR, Moscow.
(Soil microorganisms)

USSR/Biology - Soil Microbiology

FD-1421

Card 1/1 : Pub. 73 - 10/11

Author : Rybalkina, A. V.

Title : Problems which ought to be discussed concerning works on the ecologico-geographic trend in soil microbiology

Periodical : Mikrobiologiya, 23, 6, 706-718, Nov-Dec 1954

Abstract : The ecologico-geographic trend in Soviet soil microbiology is discussed from the point of view of Michurinist biology. The problems raised concern the relationships between the numbers and types of soil bacteria found in various geographic locations, soil formation, and soil conditions. Six charts illustrate the text. Twenty-eight Soviet references are cited.

Institution :

Submitted : August 1, 1954

RYBALKINA, A.V.

Conference on increasing soil fertility in the non-chernozem belt
of the European U.S.S.R. Mikrobiologiya 24 no.2:252-254 '55.
(SOIL MICROORGANISMS) (MIRA 8:7)

RYBALKINA, A.V.; KOMONENKO, Ye.V.

Active microflora of soils. Pochvovedenie no.3:63-70 Mr '56.
(MLRA 9:8)

1. Pochvennyy institut imeni V.V. Dokuchayeva Akademii nauk SSSR.
(Soil micro-organisms)

RYBALKINA, A.V.; KONONENKO, Ye.V.

Microflora of decomposing plant residues. Pochvovedenie
no.5:21-34 My '59. (MIRA 12:8)

1. Pochvennyy institut im. V.V.Dokuchayeva AN SSSR.
(Soil micro-organisms)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

BEREZOVА, Ye.F.; NAKHIMOVSKAYA, M.I.; RYBALKINA, A.V.; RABOTNOVA, I.L.;
MESSICHEVA, M.A.

David Moiseevich Novogrudskii, 1898-1953; on the 10th
anniversary of his death. Mikrobiologiya 33 no.2:379-381
Mr-Ap '64. (MIRA 17:12)

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SYPAKINA, A.V.

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I.e. Pochvennyy institut imeni V.V. Dokuchayeva.

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Investigating the microflora of cultivated peat soils in
Yakhroma Valley. Pochvovedenie no.8:13-25 Ag '61.
(MIRA 14:11)

1. Pochvennyy institut imeni V.V.Dokuchayeva.
(Yakhroma Valley—Peat soils)
(Soil micro-organisms)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330013-6

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"Mikroflora und Stickstoffmobilisation in Moorböden mit hohem Aschegehalt."

report submitted for the 7th Intl. Cong. ~~of~~ Moorland Research Frankskoy Lagne/
Franzensbad-Prague, 15-19 Sep 60.

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~~Trudy Inst. mikrobiol. no.5:136-149 '58~~ (MIRA 11:6)

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(CLOSTRIDIUM, effect of drugs on.
pasteurianum, humic acid. (Rus))
(ACIDS, effects.
humic acid, on Clostridium pasteurianum (Rus))

RYBALKINA, A.V.

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otvetstvennyy red.; VOLYISKAYA, V.S., red.izd-va; ASTAF'YEVA, G.A..
tekhn.red.

[Microflora of soils of European U.S.S.R.] Mikroflora pochv
evropeiskoi chasti SSSR; A.V.Rybalkina [Microflora of tundra,
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1. Akademiya nauk SSSR. Pochvennyy institut.
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